3.10 Upon AT&T's request, Ameritech shall provide AT&T with electronic provisioning control of an AT&T specified Dedicated Transport. Ameritech shall offer Dedicated Transport together with and separately from DCS.

3.9. Ameritech shall permit, to the extent technically feasible and at applicable rates, AT&T to obtain the functionality provided by DCS separate from dedicated transport.

Ameritech Michigan
Redlined Proposed Joint Interconnection Agreement
With Annotation Marks

Dated 10/1/96

Michigan 10/1/96

JOINT AGREEMENT Oct 1, 1996

SCHEDULE 9.2.4

INTEROFFICE TRANSMISSION FACILITIES

Interoffice Transmission Facilities are Ameritech transmission facilities dedicated to a particular Customer or carrier, or shared by more than one Customer or carrier, that provide Telecommunications Services between Wire Centers owned by Ameritech or AT&T, or between Switches owned by Ameritech or AT&T.

1. Ameritech provides several varieties of unbundled transmission facilities:

1.1. "Unbundled dedicated interoffice transport facility"" is a facility connecting two Ameritech Central Offices buildings via Ameritech transmission equipment. In each Central Office building, AT&T will Cross-Connect this facility to its own transmission equipment (physically or virtually) Collocated in each Wire Center, or to other unbundled Network Elements provided by Ameritech to the extent the requested combination is technically feasible and is consistent with other standards established by the FCC for the combination of unbundled Network Elements. All applicable digital Cross-Connect, multiplexing, and Collocation space charges apply at an additional cost.

1.2. "Unbundled dedicated entrance facility" is a dedicated facility connecting Ameritech's transmission equipment in an Ameritech Central Office with AT&T's transmission equipment in Ameritech's Wire Center for the purposes of providing Telecommunications Services.

1.3. "Shared transport transmission facilities" are shared transmission facilities between the same type of locations as described for dedicated transport in Section 1.1 and 1.2 preceding.

1.4. Dedicated interoffice facilites between an Ameritech Wire Center and an AT&T Wire Center.

2. Ameritech shall offer Interoffice Transport in each of the following ways:

2.1. As capacity on a shared circuit facility.

2.2. As a circuit (e.g., DS1, DS3, OC3, OC12 and OC48) dedicated to AT&T.

2.3 As a system (i.e., the equipment and facilities used to provide Dedicated Transport such as SONET ring) dedicated to AT&T.

3.0 When Dedicated Transport is provided as a circuit or as capacity on a shared circuit, it shall include (as appropriate):

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3.1 Multiplexing functionality;

3.2 Grooming functionality; and,

3.3 Redundant equipment and facilities necessary to support protection and restoration.

4.0 When Dedicated Transport is provided as a system it shall include:

4.1 Transmission equipment such as multiplexers, line terminating equipment, amplifiers, and regenerators;

4.2 Inter-office transmission facilities such as optical fiber, copper twisted pair, and coaxial cable; and

4.3 Dedicated Transport includes the Digital Cross-Connect System (DCS) functionality as an option. DCS is described below in the Technical Requirements

3. Technical Requirements.

This Section sets forth technical requirements for all Interoffice Transmission Facilities:

3.1. When Ameritech provides Dedicated Transport as a facility, the entire designated transmission facility (e.g., DS1, DS3, STS-1) shall be dedicated to AT&T designated traffic, subject to AT&T buying the entire system.

3.2. Ameritech shall offer Dedicated Transport in all then currently available technologies including DS1 and DS3 transport systems, SONET Bi-directional Line Switched Rings, SONET Unidirectional Path Switched Rings, and SONET point-to-point transport systems (including linear add-drop systems), at all available transmission bit rates, except subrate services.

3.3. For DS1 facilities, Dedicated Transport shall, at a minimum, meet the performance, availability, jitter, and delay requirements specified for Customer Interface to Central Office "CI to CO" connections in the applicable technical references set forth under Dedicated and Shared Transport in the Technical Reference Schedule.

3.4. For DS3 and STS-1 facilities, and higher rate facilities, Dedicated Transport shall, at a minimum, meet the performance, availability, jitter, and delay requirements specified for Customer Interface to Central Office "CI to CO" connections in the applicable technical references set forth under Dedicated and Shared Transport in the Technical Reference Schedule.

3.5. When requested by AT&T, Dedicated Transport shall provide physical diversity. Physical diversity means that two circuits are provisioned in such a way that no single failure of facilities or equipment will cause a failure on both circuits.

3.6. When physical diversity is requested by AT&T, Ameritech shall provide the maximum feasible physical separation between intra-office and inter-office transmission paths (unless otherwise agreed by AT&T).

3.7. Any request by AT&T for diversity shall be subject to additional charges.

3.8 Upon AT&T's request, Ameritech shall provide immediate and continuous remote access to performance monitoring and alarm data affecting, or potentially affecting, AT&T's traffic.

3.8. Ameritech shall offer the following interface transmission rates for Dedicated Transport:

3.8.1. DS1 (Extended SuperFrame - ESF, D4, and unframed applications and D4);

3.8.2. DS3 (C-bit Parity and M13 and unframed applications shall be provided);

3.8.3. SONET standard interface rates in accordance with the applicable ANSI technical references set forth under Dedicated and Shared Transport in the Technical Reference Schedule In particular, VT1.5 based STS-1s will be the interface at an AT&T service node.

3.9 For Dedicated Transport provided as a system, Ameritech shall design the system (including facility routing and termination points) according to AT&T requirements.

3.10 Upon AT&T's request, Ameritech shall provide AT&T with electronic provisioning control of an AT&T specified Dedicated Transport.

3.9. Ameritech shall permit, to the extent technically feasible and at applicable rates, AT&T to obtain the functionality provided by DCS together with and separate from dedicated transport.

Ameritech Michigan
Redlined Proposed Joint Interconnection Agreement
With Annotation Marks

Dated 9/17/96

Michigan

9/17/96

SCHEDULE 9.2.4

INTEROFFICE TRANSMISSION FACILITIES

Interoffice Transmission Facilities are Ameritech transmission facilities dedicated to a particular Customer or carrier, or shared by more than one Customer or carrier, that provide Telecommunications Services between Wire Centers owned by Ameritech or AT&T, or between Switches owned by Ameritech or AT&T~~, or between Customer premises and AT&T designated locations~~.

1. Ameritech provides several varieties of unbundled transmission facilities~~:~~

~~"Unbundled~~ 1.1. "Unbundled dedicated ~~inter-office~~ interoffice transport facility~~"~~" is a facility connecting two Ameritech ~~central offices~~ Central Offices buildings via Ameritech transmission equipment. In each ~~central office, a Competitive Local Exchange Carrier (CLEC) will cross-connect~~ Central Office building, AT&T will Cross-Connect this facility to its own transmission equipment (physically or virtually) ~~collocated~~ Collocated in each ~~wire center~~ Wire Center, or to other unbundled ~~network elements~~ Network Elements provided by Ameritech to the extent the requested combination is technically feasible and is consistent with other standards established by the FCC for the ~~combining~~ combination of unbundled ~~network elements. The appropriate~~ Network Elements. All applicable digital ~~cross-connect~~ Cross-Connect, multiplexing, and Collocation space charges apply at an additional cost.

~~"Unbundled~~ 1.2. "Unbundled dedicated entrance facility~~"~~" is a dedicated facility connecting Ameritech's transmission equipment in an Ameritech ~~central office with a requesting carrier's~~ Central Office with AT&T's transmission equipment in its ~~wire center~~ Wire Center for the purposes of providing ~~telecommunications services.~~ Telecommunications Services.

~~"Common~~ 1.3. "Shared transport transmission facilities~~"~~" are shared transmission facilities between ~~an Ameritech end office switch and an Ameritech tandem.~~ the same type of locations as described for dedicated transport in Section 1.1 and 1.2 preceding.

~~Other dedicated interlocation facilities using existing or planned Ameritech transmission facilities as requested by AT&T.~~

~~Ameritech shall offer Dedicated~~ 2. Ameritech shall offer Interoffice Transport in each of the following ways:

2.1. As capacity on a shared ~~circuit.~~ facility.

~~0.1~~ 2.2. As a circuit (e.g., DS1, DS3, ~~STS-1~~ OC3, OC12 and OC48) dedicated to AT&T.

~~0.2 As a system (i.e., the equipment and facilities used to provide Dedicated Transport such as SONET ring) dedicated to AT&T.~~

~~1 When Dedicated Transport is provided as a circuit or as capacity on a shared circuit, it shall include (as appropriate):~~

~~Multiplexing functionality;~~

~~Grooming functionality; and,~~

~~Redundant equipment and facilities necessary to support protection and restoration.~~

~~When Dedicated Transport is provided as a system it shall include:~~

~~Transmission equipment such as multiplexers, line terminating equipment, amplifiers, and regenerators;~~

~~1.1 Inter office transmission facilities such as optical fiber, copper twisted pair, and coaxial cable;~~

~~1.2 Redundant equipment and facilities necessary to support protection and restoration; and,~~

~~1.3 Dedicated Transport includes the Digital Cross Connect System (DCS) functionality as an option. DCS is described below in Section 3~~ 3.

Technical Requirements.

This Section sets forth technical requirements for all ~~Dedicated Transport~~ Interoffice Transmission Facilities:

3.1.

When Ameritech provides Dedicated Transport as a ~~circuit in a system~~ facility, the entire designated transmission ~~circuit or system~~ facility (e.g., DS1, DS3, STS-1) shall be dedicated to AT&T designated traffic, subject to AT&T buying the entire system.

3.2.

Ameritech shall offer Dedicated Transport in all then currently available technologies including~~, but not limited to,~~ DS1 and DS3 transport systems, SONET ~~(or SDH)~~ Bi-directional Line Switched Rings, SONET ~~(or SDH)~~ Unidirectional Path Switched Rings, and SONET ~~(or SDH)~~ point-to-point transport systems (including linear add-drop systems), at all available transmission bit rates~~.~~, except subrate services.

~~1.4~~ 3.3. For DS1 ~~or VT1.5 circuits~~ facilities, Dedicated Transport shall, at a minimum, meet the performance, availability, jitter, and delay requirements specified for Customer Interface to Central Office "CI to CO" connections in the ~~technical reference set forth in of Schedule 9.2.5.~~ applicable technical references set forth under Dedicated and Shared Transport in the Technical Reference Schedule.

~~1.5~~ 3.4. For DS3 ~~circuits, STS-1 circuits~~ facilities, and higher rate ~~circuits~~ facilities, Dedicated Transport shall, at a minimum, meet the performance, availability, jitter, and delay requirements specified for Customer Interface to Central Office "CI to CO" connections in the applicable technical reference references set forth under Dedicated and Shared Transport in the Technical Reference Schedule ~~9.2.5~~.

~~1.6~~ 3.5. When requested by AT&T, Dedicated Transport shall provide physical diversity. Physical diversity means that two circuits are provisioned in such a way that no single failure of facilities or equipment will cause a failure on both circuits.

~~1.7~~ 3.6. When physical diversity is requested by AT&T, Ameritech shall provide the maximum feasible physical separation between intra-office and inter-office transmission paths (unless otherwise agreed by AT&T).

~~1.8 Upon AT&T's request, Ameritech shall provide immediate and continuous remote access to performance monitoring and alarm data affecting, or potentially affecting, AT&T's traffic.~~ 3.7. Any request by AT&T for diversity shall be subject to additional charges.

3.8. Ameritech shall offer the following interface transmission rates for Dedicated Transport:

3.8.1. DS1 (Extended SuperFrame - ESF, ~~D4, and unframed applications shall be provided);~~

~~1.8.1~~ and D4);

3.8.2. DS3 (C-bit Parity, ~~M13, and unframed applications~~ and M13 shall be provided);

~~1.8.2~~ 3.8.3. SONET standard interface rates in accordance with ~~ANSI T1.105 and ANSI T1.105.07 and physical interfaces per ANSI T1.106.06 (including referenced interfaces). In particular, VT1.5 based STS-1s will be the interface at an AT&T service node.~~ the applicable ANSI technical references set forth under Dedicated and Shared Transport in the Technical Reference Schedule.

~~1.8.3 SDH Standard interface rates in accordance with International Telecommunications Union (ITU) Recommendation G.707 and Plesiochronous Digital Hierarchy (PDH) rates per ITU Recommendation G.764.~~

~~For Dedicated Transport provided as a system, Ameritech shall design the system (including but not limited to facility routing and termination points) according to AT&T specifications.~~

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~~Upon AT&T's request, Ameritech shall provide AT&T with electronic provisioning control of an AT&T specified Dedicated Transport.~~

~~1.9 Ameritech shall offer Dedicated Transport together with and separately from DCS.~~ 3.9. Ameritech shall permit, to the extent technically feasible and at applicable rates, AT&T to obtain the functionality provided by DCS separate from dedicated transport.

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SCHEDULE 9.2.4

INTEROFFICE TRANSMISSION FACILITIES

Interoffice Transmission Facilities are Ameritech transmission facilities dedicated to a particular Customer or carrier, or shared by more than one Customer or carrier, that provide Telecommunications Services between Wire Centers owned by Ameritech or AT&T, or between Switches owned by Ameritech or AT&T.

1. Ameritech provides several varieties of unbundled transmission facilities:

1.1. "Unbundled dedicated interoffice transport facility" is a facility connecting two Ameritech Central Offices buildings via Ameritech transmission equipment. In each Central Office building, AT&T will Cross-Connect this facility to its own transmission equipment (physically or virtually) Collocated in each Wire Center, or to other unbundled Network Elements provided by Ameritech to the extent the requested combination is technically feasible and is consistent with other standards established by the FCC for the combination of unbundled Network Elements. All applicable digital Cross-Connect, multiplexing, and Collocation space charges apply at an additional cost.

1.2. "Unbundled dedicated entrance facility" is a dedicated facility connecting Ameritech's transmission equipment in an Ameritech Central Office with AT&T's transmission equipment in its Wire Center for the purposes of providing Telecommunications Services.

1.3. "Shared transport transmission facilities" are shared transmission facilities between the same type of locations as described for dedicated transport in Section 1.1 and 1.2 preceding.

2. Ameritech shall offer Interoffice Transport in each of the following ways:

2.1. As capacity on a shared facility.

2.2. As a circuit (e.g., DS1, DS3, OC3, OC12 and OC48) dedicated to AT&T.

3. Technical Requirements.

This Section sets forth technical requirements for all Interoffice Transmission Facilities:

3.1. When Ameritech provides Dedicated Transport as a facility, the entire designated transmission facility (e.g., DS1, DS3, STS-1) shall be dedicated to AT&T designated traffic, subject to AT&T buying the entire system.

3.2. Ameritech shall offer Dedicated Transport in all then currently available technologies including DS1 and DS3 transport systems, SONET Bi-directional Line Switched Rings, SONET Unidirectional Path Switched Rings, and SONET point-to-point transport systems (including linear add-drop systems), at all available transmission bit rates, except subrate services.

3.3. For DS1 facilities, Dedicated Transport shall, at a minimum, meet the performance, availability, jitter, and delay requirements specified for Customer Interface to Central Office "CI to CO" connections in the applicable technical references set forth under Dedicated and Shared Transport in the Technical Reference Schedule.

3.4. For DS3 facilities, and higher rate facilities, Dedicated Transport shall, at a minimum, meet the performance, availability, jitter, and delay requirements specified for Customer Interface to Central Office "CI to CO" connections in the applicable technical references set forth under Dedicated and Shared Transport in the Technical Reference Schedule.

3.5. When requested by AT&T, Dedicated Transport shall provide physical diversity. Physical diversity means that two circuits are provisioned in such a way that no single failure of facilities or equipment will cause a failure on both circuits.

3.6. When physical diversity is requested by AT&T, Ameritech shall provide the maximum feasible physical separation between intra-office and inter-office transmission paths (unless otherwise agreed by AT&T).

3.7. Any request by AT&T for diversity shall be subject to additional charges.

3.8. Ameritech shall offer the following interface transmission rates for Dedicated Transport:

3.8.1. DS1 (Extended SuperFrame - ESF and D4);

3.8.2. DS3 (C-bit Parity and M13 shall be provided);

3.8.3. SONET standard interface rates in accordance with the applicable ANSI technical references set forth under Dedicated and Shared Transport in the Technical Reference Schedule.

3.9. Ameritech shall permit, to the extent technically feasible and at applicable rates, AT&T to obtain the functionality provided by DCS separate from dedicated transport.